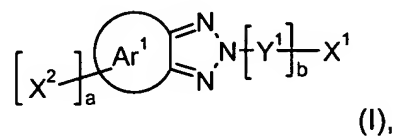


## Claims

1. (currently amended) An electroluminescent device, comprising a 2H-benzotriazole compound of the formula

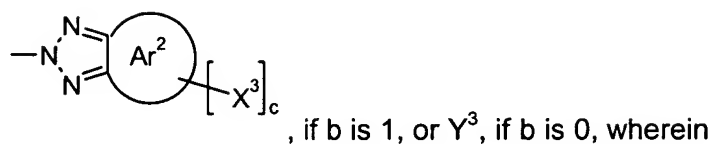


where

a is 0, or 1,

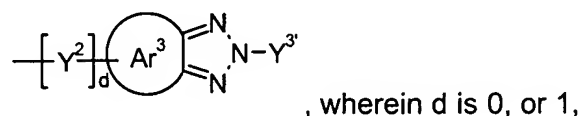
b is 0, or 1,

X<sup>1</sup> is a group of formula



c is 0, or 1

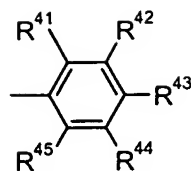
X<sup>2</sup> and X<sup>3</sup> are independently of each other a group of formula



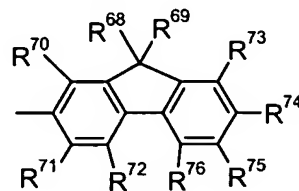
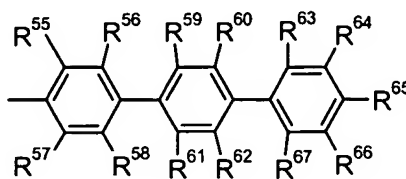
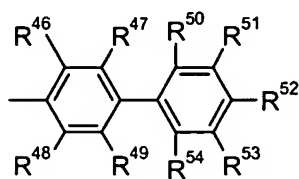
Ar<sup>1</sup>, Ar<sup>2</sup>, and Ar<sup>3</sup> are independently of each other C<sub>6</sub>-C<sub>30</sub>aryl or a C<sub>2</sub>-C<sub>26</sub>heteroaryl, which can optionally be substituted,

Y<sup>1</sup> and Y<sup>2</sup> are independently of each other a divalent linking group, and

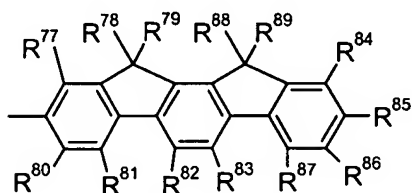
~~Y<sup>3</sup> and Y<sup>3'</sup> are independently of each other C<sub>6</sub>-C<sub>30</sub>aryl or a C<sub>2</sub>-C<sub>26</sub>heteroaryl, which can optionally be substituted~~



$Y^3$  and  $Y^{3'}$  are independently of each other a group of formula



, or

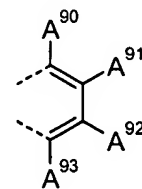


, wherein

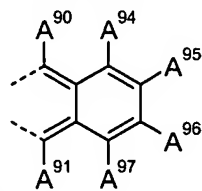
$R^{41}, R^{42}, R^{43}, R^{44}, R^{45}, R^{46}, R^{47}, R^{48}, R^{49}, R^{50}, R^{51}, R^{52}, R^{53}, R^{54}, R^{55}, R^{56}, R^{57}, R^{58}, R^{59}, R^{60}, R^{61}$

$R^{62}, R^{63}, R^{64}, R^{65}, R^{66}, R^{67}, R^{70}, R^{71}, R^{72}, R^{73}, R^{74}, R^{75}, R^{76}, R^{77}, R^{80}, R^{81}, R^{82}, R^{83}, R^{84}, R^{85}, R^{86}$

and  $R^{87}$  are independently of each other H,  $C_1$ - $C_{24}$ alkyl, which is optionally substituted by E and/or interrupted by D,  $C_1$ - $C_{24}$ alkenyl, which is optionally substituted by E,  $C_5$ - $C_{12}$ cycloalkyl, which is optionally substituted by E,  $C_5$ - $C_{12}$ cycloalkoxy, which is optionally substituted by E,  $C_6$ - $C_{18}$ aryl, which is optionally substituted by E,  $C_1$ - $C_{24}$ alkoxy, which is optionally substituted by E and/or interrupted by D,  $C_6$ - $C_{18}$ aryloxy, which is optionally substituted by E,  $C_7$ - $C_{18}$ arylalkoxy, which is optionally substituted by E,  $C_1$ - $C_{24}$ alkylthio, which is optionally substituted by E and/or interrupted by D,  $C_1$ - $C_{24}$ alkylselenium, which is optionally substituted by E and/or interrupted by D,  $C_1$ - $C_{24}$ alkyltellurium, which is optionally substituted by E and/or interrupted by D,  $C_2$ - $C_{20}$ heteroaryl which is substituted by E, or  $C_6$ - $C_{18}$ aralkyl, which is optionally substituted by E, or two groups  $R^{41}, R^{42}, R^{43}, R^{44}, R^{45}, R^{46}, R^{47}, R^{48}, R^{49}, R^{50}, R^{51}, R^{52}, R^{53}, R^{54}, R^{55}, R^{56}, R^{57}, R^{58}, R^{59}, R^{60}, R^{61}, R^{62}, R^{63}, R^{64}, R^{65}, R^{66}, R^{67}, R^{70}, R^{71}, R^{72}, R^{73}, R^{74}, R^{75}, R^{76}, R^{77}, R^{80}, R^{81}, R^{82}, R^{83}, R^{84}$



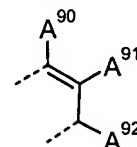
$R^{85}, R^{86}$ , and  $R^{87}$ , which are neighbouring to each other, are a group



or, wherein  $A^{90}, A^{91}, A^{92}, A^{93}, A^{94}, A^{95}, A^{96}$  and  $A^{97}$  are independently of each

other H, halogen, hydroxy, C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>1</sub>-C<sub>24</sub>perfluoroalkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl which is substituted by E and/or interrupted by S-, -O-, or -NR<sup>25</sup>-, C<sub>5</sub>-C<sub>12</sub>cycloalkoxy, C<sub>5</sub>-C<sub>12</sub>cycloalkoxy which is substituted by E, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryl which is substituted by E, C<sub>2</sub>-C<sub>20</sub>heteroaryl, C<sub>2</sub>-C<sub>20</sub>heteroaryl which is substituted by E, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>2</sub>-C<sub>24</sub>alkynyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkoxy which is substituted by E and/or interrupted by D, C<sub>7</sub>-C<sub>25</sub>aralkyl, C<sub>7</sub>-C<sub>25</sub>aralkyl, which is substituted by E, C<sub>7</sub>-C<sub>25</sub>aralkoxy, C<sub>7</sub>-C<sub>25</sub>aralkoxy which is substituted by E, or -CO-R<sup>28</sup>.

R<sup>68</sup>, R<sup>69</sup>, R<sup>78</sup>, R<sup>79</sup>, R<sup>88</sup> and R<sup>89</sup> are independently of each other C<sub>1</sub>-C<sub>18</sub> alkyl, C<sub>1</sub>-C<sub>24</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryl which is substituted by E, C<sub>2</sub>-C<sub>20</sub>heteroaryl, C<sub>2</sub>-C<sub>20</sub>heteroaryl which is substituted by E, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>2</sub>-C<sub>24</sub>alkynyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkoxy which is substituted by E and/or interrupted by D, or C<sub>7</sub>-C<sub>25</sub>aralkyl, or R<sup>68</sup> and R<sup>69</sup>, R<sup>78</sup> and R<sup>79</sup>, and/or R<sup>88</sup> and R<sup>89</sup> form a five- or six-membered ring, or



R<sup>68</sup> and R<sup>70</sup>, R<sup>69</sup> and R<sup>73</sup>, R<sup>77</sup> and R<sup>78</sup> and/or R<sup>84</sup> and R<sup>89</sup> are a group

D is -CO-; -COO-; -S-; -SO-; -SO<sub>2</sub>-; -O-; -NR<sup>25</sup>-; -SiR<sup>30</sup>R<sup>31</sup>-; -POR<sup>32</sup>-; -CR<sup>23</sup>=CR<sup>24</sup>-; or -C≡C-; and

E is -OR<sup>29</sup>; -SR<sup>29</sup>; -NR<sup>25</sup>R<sup>26</sup>; -COR<sup>28</sup>; -COOR<sup>27</sup>; -CONR<sup>25</sup>R<sup>26</sup>; -CN; -OCOOR<sup>27</sup>; or halogen;

wherein

R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and R<sup>26</sup> are independently of each other H; C<sub>6</sub>-C<sub>18</sub>aryl; C<sub>6</sub>-C<sub>18</sub>aryl which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl, or C<sub>1</sub>-C<sub>24</sub>alkoxy; C<sub>1</sub>-C<sub>24</sub>alkyl; or C<sub>1</sub>-C<sub>24</sub>alkyl which is interrupted by -O-; or

R<sup>25</sup> and R<sup>26</sup> together form a five or six membered ring,

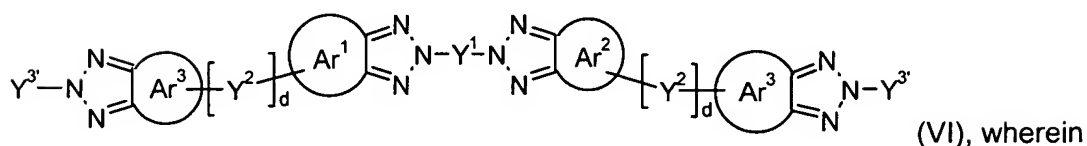
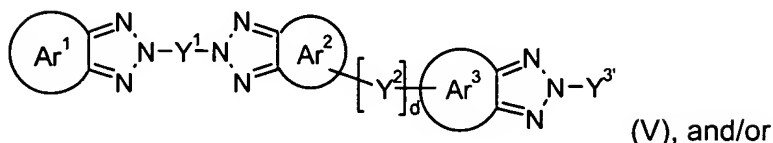
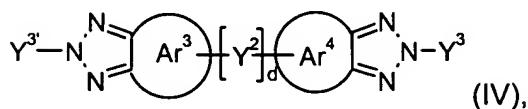
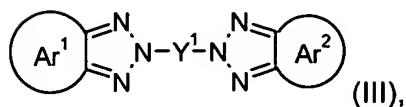
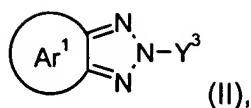
R<sup>27</sup> and R<sup>28</sup> are independently of each other H; C<sub>6</sub>-C<sub>18</sub>aryl; C<sub>6</sub>-C<sub>18</sub>aryl which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl, or C<sub>1</sub>-C<sub>24</sub>alkoxy; C<sub>1</sub>-C<sub>24</sub>alkyl; or C<sub>1</sub>-C<sub>24</sub>alkyl which is interrupted by -O-;

R<sup>29</sup> is H; C<sub>6</sub>-C<sub>18</sub>aryl; C<sub>6</sub>-C<sub>18</sub>aryl, which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl, or C<sub>1</sub>-C<sub>24</sub>alkoxy; C<sub>1</sub>-C<sub>24</sub>alkyl; or C<sub>1</sub>-C<sub>24</sub>alkyl which is interrupted by -O-;

R<sup>30</sup> and R<sup>31</sup> are independently of each other C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>6</sub>-C<sub>18</sub>aryl, or C<sub>6</sub>-C<sub>18</sub>aryl, which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl, and

R<sup>32</sup> is C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>6</sub>-C<sub>18</sub>aryl, or C<sub>6</sub>-C<sub>18</sub>aryl, which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl.

2. (currently amended) An electroluminescent device according to claim 1, comprising a 2H-benzotriazole compound of the formula



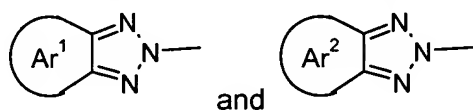
d, Ar¹, Ar², Ar³, Y¹ and Y² are defined as in claim 1 [[,]] and

Ar⁴ stand for C₆-C₃₀aryl or a C₂-C₂₆heteroaryl, which can optionally be substituted [[,]]

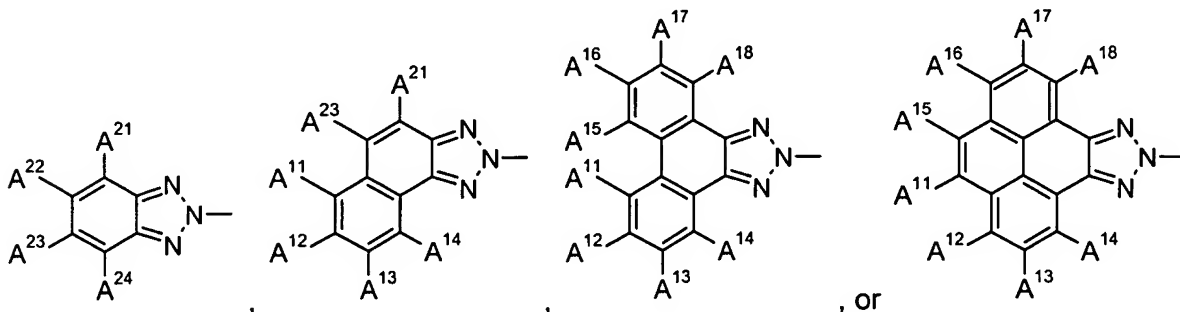
and

~~Y³ and Y³' are independently of each other C₆-C₃₀aryl or a C₂-C₂₆heteroaryl, which can optionally be substituted.~~

3. (previously presented) An electroluminescent device according to claim 2, wherein

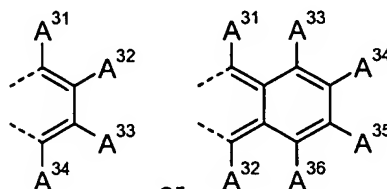


in formula II or III are independently of each other a group of formula

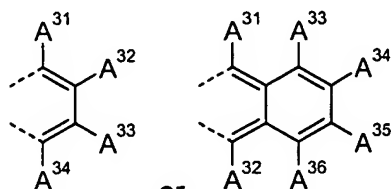


wherein

$A^{21}$ ,  $A^{22}$ ,  $A^{23}$ ,  $A^{24}$ ,  $A^{11}$ ,  $A^{12}$ ,  $A^{13}$ ,  $A^{14}$ ,  $A^{15}$ ,  $A^{16}$ ,  $A^{17}$  and  $A^{18}$  are independently of each other H, halogen, hydroxy,  $C_1$ - $C_{24}$ alkyl,  $C_1$ - $C_{24}$ alkyl which is substituted by E and/or interrupted by D,  $C_1$ - $C_{24}$ perfluoroalkyl,  $C_5$ - $C_{12}$ cycloalkyl,  $C_5$ - $C_{12}$ cycloalkyl which is substituted by E and/or interrupted by S-, -O-, or - $NR^{25}$ -, - $NR^{25}R^{26}$ ,  $C_1$ - $C_{24}$ alkylthio, - $PR^{32}R^{32}$ ,  $C_5$ - $C_{12}$ cycloalkoxy,  $C_5$ - $C_{12}$ cycloalkoxy which is substituted by E,  $C_6$ - $C_{24}$ aryl,  $C_6$ - $C_{24}$ aryl which is substituted by E,  $C_2$ - $C_{20}$ heteroaryl,  $C_2$ - $C_{20}$ heteroaryl which is substituted by E,  $C_2$ - $C_{24}$ alkenyl,  $C_2$ - $C_{24}$ alkynyl,  $C_1$ - $C_{24}$ alkoxy,  $C_1$ - $C_{24}$ alkoxy which is substituted by E and/or interrupted by D,  $C_7$ - $C_{25}$ aralkyl,  $C_7$ - $C_{25}$ aralkyl, which is substituted by E,  $C_7$ - $C_{25}$ aralkoxy,  $C_7$ - $C_{25}$ aralkoxy which is substituted by E, or - $CO-R^{28}$ , or



$A^{22}$  and  $A^{23}$  or  $A^{11}$  and  $A^{23}$  are a group, or two groups  $A^{11}$ ,  $A^{12}$ ,  $A^{13}$ ,  $A^{14}$ ,  $A^{15}$ ,  $A^{16}$ ,  $A^{17}$  and  $A^{18}$ , which are neighbouring to each other, are a



group, or, wherein  $A^{31}$ ,  $A^{32}$ ,  $A^{33}$ ,  $A^{34}$ ,  $A^{35}$ ,  $A^{36}$  and  $A^{37}$  are

independently of each other H, halogen, hydroxy,  $C_1$ - $C_{24}$ alkyl,  $C_1$ - $C_{24}$ alkyl which is substituted by E and/or interrupted by D,  $C_1$ - $C_{24}$ perfluoroalkyl,  $C_5$ - $C_{12}$ cycloalkyl,  $C_5$ - $C_{12}$ cycloalkyl which is substituted by E and/or interrupted by S-, -O-, or - $NR^{25}$ -,  $C_5$ - $C_{12}$ cycloalkoxy,  $C_5$ - $C_{12}$ cycloalkoxy which is substituted by E,  $C_6$ - $C_{24}$ aryl,  $C_6$ - $C_{24}$ aryl which is substituted by E,  $C_2$ - $C_{20}$ heteroaryl,  $C_2$ - $C_{20}$ heteroaryl which is substituted by E,  $C_2$ - $C_{24}$ alkenyl,  $C_2$ - $C_{24}$ alkynyl,  $C_1$ - $C_{24}$ alkoxy,  $C_1$ - $C_{24}$ alkoxy which is substituted by E and/or interrupted by D,  $C_7$ - $C_{25}$ aralkyl,  $C_7$ - $C_{25}$ aralkyl, which is substituted by E,  $C_7$ - $C_{25}$ aralkoxy,  $C_7$ - $C_{25}$ aralkoxy which is substituted by E, or - $CO-R^{28}$ ,

D is - $CO$ -; - $COO$ -; -S-; -SO-; - $SO_2$ -; -O-; - $NR^{25}$ -, - $SiR^{30}R^{31}$ -, - $POR^{32}$ -, - $CR^{23}=CR^{24}$ -, or - $C\equiv C$ -; and E is - $OR^{29}$ -, - $SR^{29}$ -, - $NR^{25}R^{26}$ -, - $COR^{28}$ -, - $COOR^{27}$ -, - $CONR^{25}R^{26}$ -, -CN-, - $OCOOR^{27}$ -, or halogen;

wherein

$R^{23}$ ,  $R^{24}$ ,  $R^{25}$  and  $R^{26}$  are independently of each other H;  $C_6$ - $C_{18}$ aryl;  $C_6$ - $C_{18}$ aryl which is substituted by  $C_1$ - $C_{24}$ alkyl, or  $C_1$ - $C_{24}$ alkoxy;  $C_1$ - $C_{24}$ alkyl; or  $C_1$ - $C_{24}$ alkyl which is interrupted by -O-; or

$R^{25}$  and  $R^{26}$  together form a five or six membered ring,

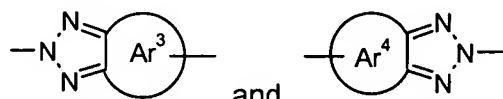
$R^{27}$  and  $R^{28}$  are independently of each other H;  $C_6$ - $C_{18}$ aryl;  $C_6$ - $C_{18}$ aryl which is substituted by  $C_1$ - $C_{24}$ alkyl, or  $C_1$ - $C_{24}$ alkoxy;  $C_1$ - $C_{24}$ alkyl; or  $C_1$ - $C_{24}$ alkyl which is interrupted by -O-,

$R^{29}$  is H;  $C_6-C_{18}$ aryl;  $C_6-C_{18}$ aryl, which is substituted by  $C_1-C_{24}$ alkyl, or  $C_1-C_{24}$ alkoxy;  $C_1-C_{24}$ alkyl; or  $C_1-C_{24}$ alkyl which is interrupted by  $-O-$ ,

$R^{30}$  and  $R^{31}$  are independently of each other  $C_1-C_{24}$ alkyl,  $C_6-C_{18}$ aryl, or  $C_6-C_{18}$ aryl, which is substituted by  $C_1-C_{24}$ alkyl, and

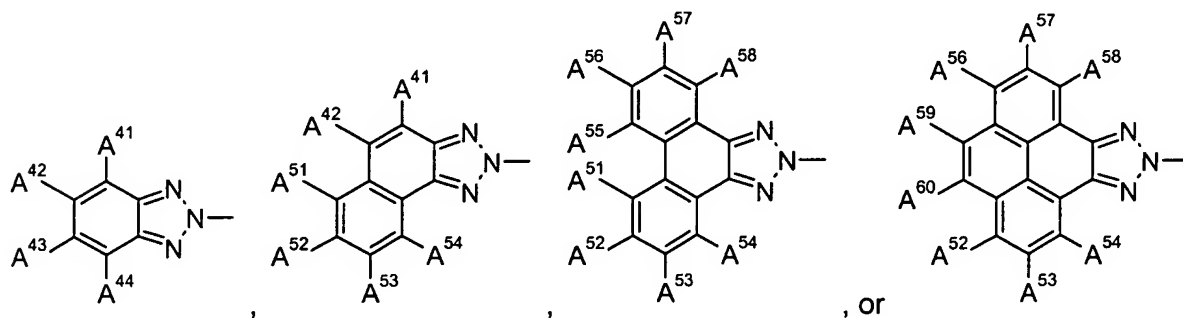
$R^{32}$  is  $C_1-C_{24}$ alkyl,  $C_6-C_{18}$ aryl, or  $C_6-C_{18}$ aryl, which is substituted by  $C_1-C_{24}$ alkyl.

**4. (previously presented)** An electroluminescent device according to claim 2, wherein



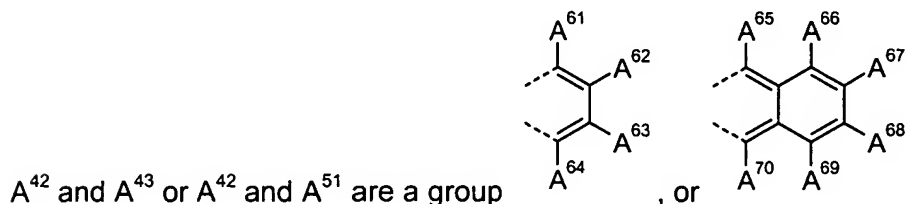
in formula IV are independently of each other a group

of formula

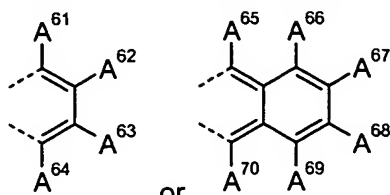


wherein

$A^{41}$ ,  $A^{42}$ ,  $A^{43}$ ,  $A^{44}$ ,  $A^{51}$ ,  $A^{52}$ ,  $A^{53}$ ,  $A^{54}$ ,  $A^{55}$ ,  $A^{56}$ ,  $A^{57}$ ,  $A^{58}$ ,  $A^{59}$  and  $A^{60}$  are independently of each other H, halogen, hydroxy,  $C_1-C_{24}$ alkyl,  $C_1-C_{24}$ alkyl which is substituted by E and/or interrupted by D,  $C_1-C_{24}$ perfluoroalkyl,  $C_5-C_{12}$ cycloalkyl,  $C_5-C_{12}$ cycloalkyl which is substituted by E and/or interrupted by S-,  $-O-$ , or  $-NR^{25}-$ ,  $NR^{25}R^{26}$ ,  $C_1-C_{24}$ alkylthio,  $-PR^{32}R^{32}$ ,  $C_5-C_{12}$ cycloalkoxy,  $C_5-C_{12}$ cycloalkoxy which is substituted by E,  $C_6-C_{24}$ aryl,  $C_6-C_{24}$ aryl which is substituted by E,  $C_2-C_{20}$ heteroaryl,  $C_2-C_{20}$ heteroaryl which is substituted by E,  $C_2-C_{24}$ alkenyl,  $C_2-C_{24}$ alkynyl,  $C_1-C_{24}$ alkoxy,  $C_1-C_{24}$ alkoxy which is substituted by E and/or interrupted by D,  $C_7-C_{25}$ aralkyl,  $C_7-C_{25}$ aralkyl, which is substituted by E,  $C_7-C_{25}$ aralkoxy,  $C_7-C_{25}$ aralkoxy which is substituted by E, or  $-CO-R^{28}$ , or



two groups  $A^{51}$ ,  $A^{52}$ ,  $A^{53}$ ,  $A^{54}$ ,  $A^{55}$ ,  $A^{56}$ ,  $A^{57}$ ,  $A^{58}$ ,  $A^{59}$  and  $A^{60}$ , which are neighbouring to each



other, are a group , or , wherein  $A^{61}$ ,  $A^{62}$ ,  $A^{63}$ ,  $A^{64}$ ,  $A^{65}$ ,  $A^{66}$ ,  $A^{67}$ ,  $A^{68}$ ,  $A^{69}$  and  $A^{70}$  are independently of each other H, halogen, hydroxy,  $C_1$ - $C_{24}$ alkyl,  $C_1$ - $C_{24}$ alkyl which is substituted by E and/or interrupted by D,  $C_1$ - $C_{24}$ perfluoroalkyl,  $C_5$ - $C_{12}$ cycloalkyl,  $C_5$ - $C_{12}$ cycloalkyl which is substituted by E and/or interrupted by S-, -O-, or  $-NR^{25}$ -,  $C_5$ - $C_{12}$ cycloalkoxy,  $C_5$ - $C_{12}$ cycloalkoxy which is substituted by E,  $C_6$ - $C_{24}$ aryl,  $C_6$ - $C_{24}$ aryl which is substituted by E,  $C_2$ - $C_{20}$ heteroaryl,  $C_2$ - $C_{20}$ heteroaryl which is substituted by E,  $C_2$ - $C_{24}$ alkenyl,  $C_2$ - $C_{24}$ alkynyl,  $C_1$ - $C_{24}$ alkoxy,  $C_1$ - $C_{24}$ alkoxy which is substituted by E and/or interrupted by D,  $C_7$ - $C_{25}$ aralkyl,  $C_7$ - $C_{25}$ aralkyl, which is substituted by E,  $C_7$ - $C_{25}$ aralkoxy,  $C_7$ - $C_{25}$ aralkoxy which is substituted by E, or  $-CO-R^{28}$ ,

D is  $-CO$ -;  $-COO$ -;  $-S$ -;  $-SO$ -;  $-SO_2$ -;  $-O$ -;  $-NR^{25}$ -,  $-SiR^{30}R^{31}$ -,  $-POR^{32}$ -,  $-CR^{23}=CR^{24}$ -, or  $-C\equiv C$ -; and E is  $-OR^{29}$ -,  $-SR^{29}$ -,  $-NR^{25}R^{26}$ -,  $-COR^{28}$ -,  $-COOR^{27}$ -,  $-CONR^{25}R^{26}$ -,  $-CN$ -,  $-OCOOR^{27}$ -, or halogen;

wherein

$R^{23}$ ,  $R^{24}$ ,  $R^{25}$  and  $R^{26}$  are independently of each other H;  $C_6$ - $C_{18}$ aryl;  $C_6$ - $C_{18}$ aryl which is substituted by  $C_1$ - $C_{24}$ alkyl, or  $C_1$ - $C_{24}$ alkoxy;  $C_1$ - $C_{24}$ alkyl; or  $C_1$ - $C_{24}$ alkyl which is interrupted by  $-O$ -; or

$R^{25}$  and  $R^{26}$  together form a five or six membered ring,

$R^{27}$  and  $R^{28}$  are independently of each other H;  $C_6$ - $C_{18}$ aryl;  $C_6$ - $C_{18}$ aryl which is substituted by  $C_1$ - $C_{24}$ alkyl, or  $C_1$ - $C_{24}$ alkoxy;  $C_1$ - $C_{24}$ alkyl; or  $C_1$ - $C_{24}$ alkyl which is interrupted by  $-O$ -,

$R^{29}$  is H;  $C_6$ - $C_{18}$ aryl;  $C_6$ - $C_{18}$ aryl, which is substituted by  $C_1$ - $C_{24}$ alkyl, or  $C_1$ - $C_{24}$ alkoxy;  $C_1$ - $C_{24}$ alkyl; or  $C_1$ - $C_{24}$ alkyl which is interrupted by  $-O$ -,

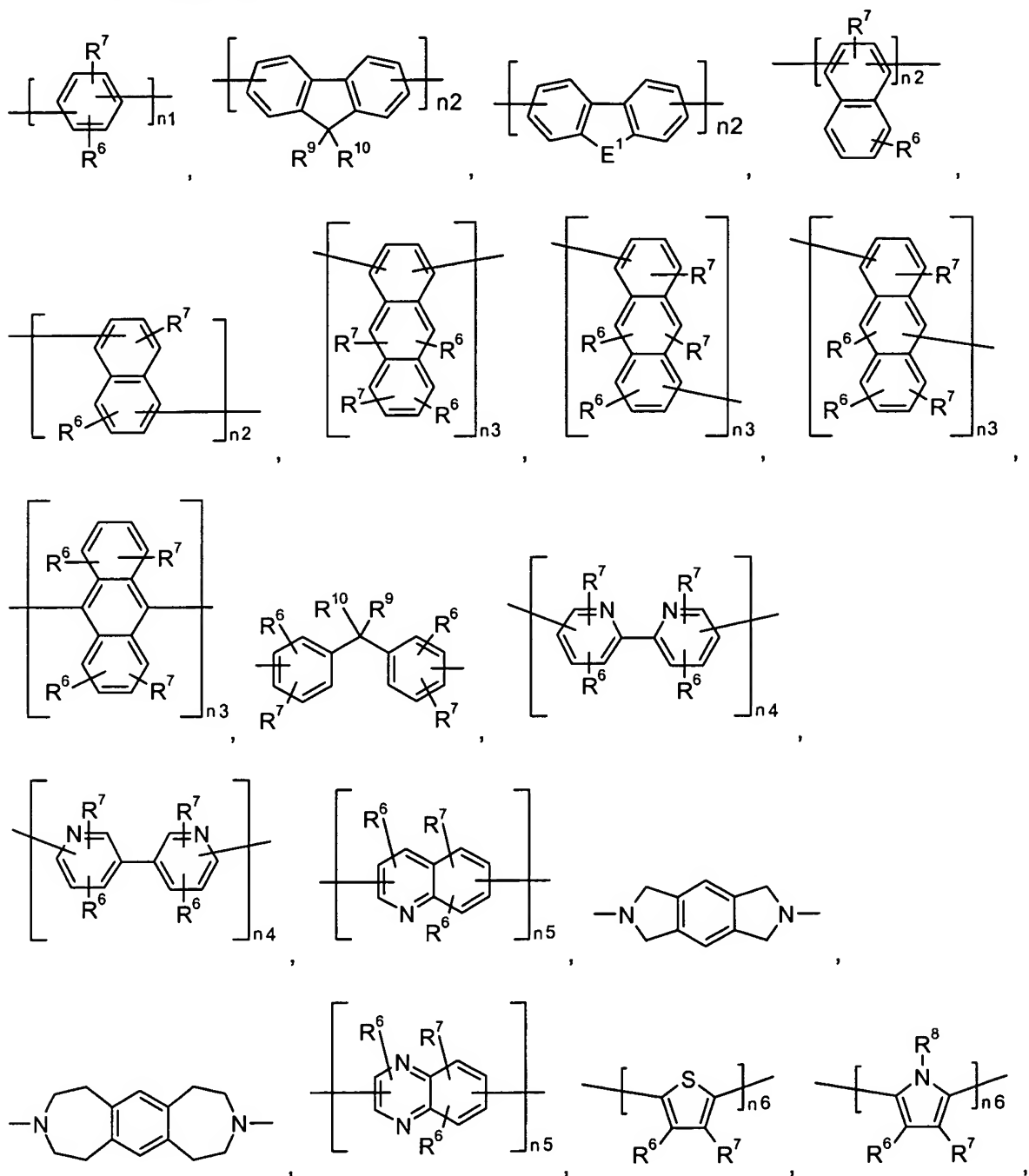
$R^{30}$  and  $R^{31}$  are independently of each other  $C_1$ - $C_{24}$ alkyl,  $C_6$ - $C_{18}$ aryl, or  $C_6$ - $C_{18}$ aryl, which is substituted by  $C_1$ - $C_{24}$ alkyl, and

$R^{32}$  is  $C_1$ - $C_{24}$ alkyl,  $C_6$ - $C_{18}$ aryl, or  $C_6$ - $C_{18}$ aryl, which is substituted by  $C_1$ - $C_{24}$ alkyl, wherein one of the substituents  $A^{41}$ ,  $A^{42}$ ,  $A^{43}$ ,  $A^{44}$ ,  $A^{51}$ ,  $A^{52}$ ,  $A^{53}$ ,  $A^{54}$ ,  $A^{55}$ ,  $A^{56}$ ,  $A^{57}$ ,  $A^{58}$ ,  $A^{59}$ ,  $A^{60}$ ,  $A^{61}$ ,  $A^{62}$ ,  $A^{63}$ ,  $A^{64}$ ,  $A^{65}$ ,  $A^{66}$ ,  $A^{67}$ ,  $A^{68}$ ,  $A^{69}$  and  $A^{70}$  represents a single bond.

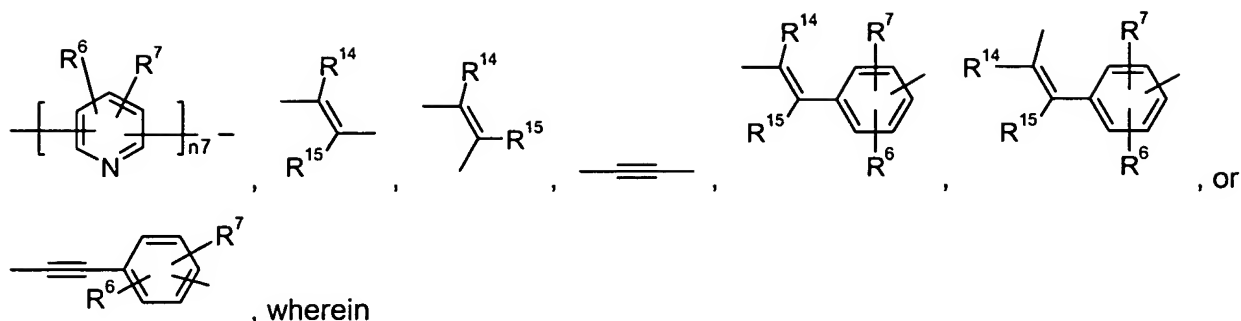
## 5. (canceled)

**6. (previously presented)** An electroluminescent device according to claim 1, wherein

$Y^1$  and  $Y^2$  are independently of each other







n1, n2, n3, n4, n5, n6 and n7 are 1, 2, or 3,

E<sup>1</sup> is -S-, -O-, or -NR<sup>25'</sup>-, wherein R<sup>25'</sup> is C<sub>1</sub>-C<sub>24</sub>alkyl, or C<sub>6</sub>-C<sub>10</sub>aryl,

R<sup>6</sup> and R<sup>7</sup> are independently of each other H, halogen, hydroxy, C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>1</sub>-C<sub>24</sub>perfluoroalkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl which is substituted by E and/or interrupted by S-, -O-, or -NR<sup>25</sup>-, C<sub>5</sub>-C<sub>12</sub>cycloalkoxy, C<sub>5</sub>-C<sub>12</sub>cycloalkoxy which is substituted by E, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryl which is substituted by E, C<sub>2</sub>-C<sub>20</sub>heteroaryl, C<sub>2</sub>-C<sub>20</sub>heteroaryl which is substituted by E, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>2</sub>-C<sub>24</sub>alkynyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkoxy which is substituted by E and/or interrupted by D, C<sub>7</sub>-C<sub>25</sub>aralkyl, C<sub>7</sub>-C<sub>25</sub>aralkyl, which is substituted by E, C<sub>7</sub>-C<sub>25</sub>aralkoxy, C<sub>7</sub>-C<sub>25</sub>aralkoxy which is substituted by E, or -CO-R<sup>28</sup>,

R<sup>8</sup> is C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>6</sub>-C<sub>24</sub> aryl, or C<sub>7</sub>-C<sub>25</sub>aralkyl,

R<sup>9</sup> and R<sup>10</sup> are independently of each other C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryl which is substituted by E, C<sub>2</sub>-C<sub>20</sub>heteroaryl, C<sub>2</sub>-C<sub>20</sub>heteroaryl which is substituted by E, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>2</sub>-C<sub>24</sub>alkynyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkoxy which is substituted by E and/or interrupted by D, or C<sub>7</sub>-C<sub>25</sub>aralkyl, or

R<sup>9</sup> and R<sup>10</sup> form a five- or six-membered ring,

R<sup>14</sup> and R<sup>15</sup> are independently of each other H, C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryl which is substituted by E, C<sub>2</sub>-C<sub>20</sub>heteroaryl, or C<sub>2</sub>-C<sub>20</sub>heteroaryl which is substituted by E,

D is -CO-, -COO-, -S-, -SO-, -SO<sub>2</sub>-, -O-, -NR<sup>25</sup>-, -SiR<sup>30</sup>R<sup>31</sup>-, -POR<sup>32</sup>-, -CR<sup>23</sup>=CR<sup>24</sup>-, or -C≡C-, and

E is -OR<sup>29</sup>-, -SR<sup>29</sup>-, -NR<sup>25</sup>R<sup>26</sup>-, -COR<sup>28</sup>-, -COOR<sup>27</sup>-, -CONR<sup>25</sup>R<sup>26</sup>-, -CN, -OCOOR<sup>27</sup>-, or halogen,

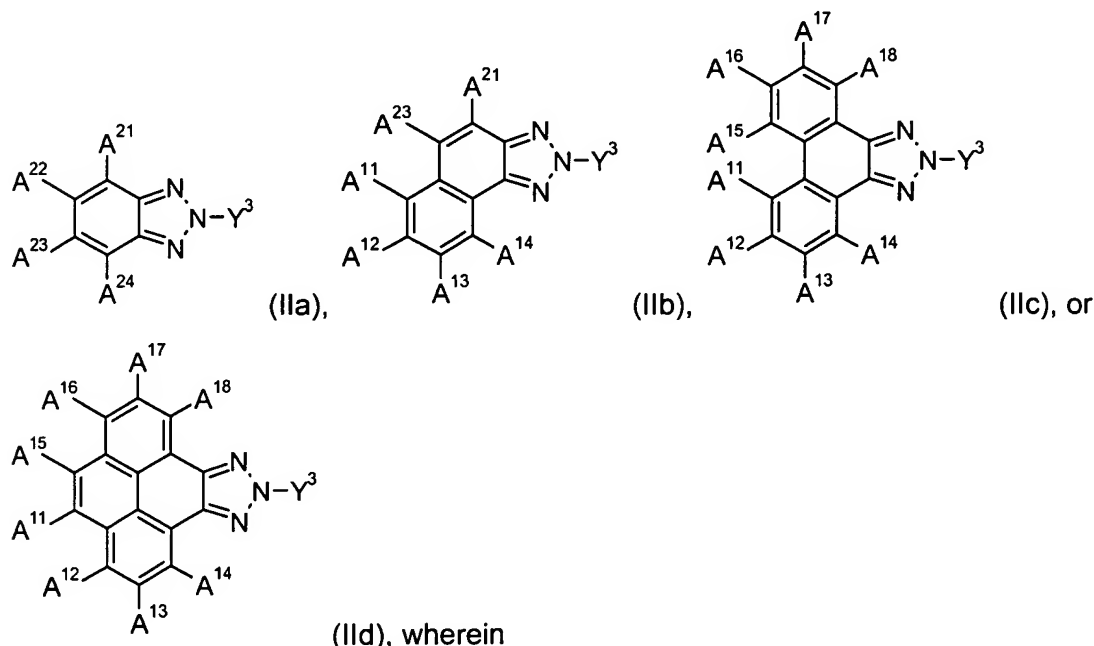
wherein

R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and R<sup>26</sup> are independently of each other H, C<sub>6</sub>-C<sub>18</sub>aryl, C<sub>6</sub>-C<sub>18</sub>aryl which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkyl, or C<sub>1</sub>-C<sub>24</sub>alkyl which is interrupted by -O-, or.

R<sup>25</sup> and R<sup>26</sup> together form a five or six membered ring,

$R^{27}$  and  $R^{28}$  are independently of each other H,  $C_6-C_{18}$ aryl,  $C_6-C_{18}$ aryl which is substituted by  $C_1-C_{24}$ alkyl, or  $C_1-C_{24}$ alkoxy,  $C_1-C_{24}$ alkyl, or  $C_1-C_{24}$ alkyl which is interrupted by  $-O-$ ,  
 $R^{29}$  is H,  $C_6-C_{18}$ aryl,  $C_6-C_{18}$ aryl, which is substituted by  $C_1-C_{24}$ alkyl,  $C_1-C_{24}$ alkoxy,  $C_1-C_{24}$ alkyl, or  $C_1-C_{24}$ alkyl which is interrupted by  $-O-$ ,  
 $R^{30}$  and  $R^{31}$  are independently of each other  $C_1-C_{24}$ alkyl,  $C_6-C_{18}$ aryl, or  $C_6-C_{18}$ aryl, which is substituted by  $C_1-C_{24}$ alkyl, and  
 $R^{32}$  is  $C_1-C_{24}$ alkyl,  $C_6-C_{18}$ aryl, or  $C_6-C_{18}$ aryl, which is substituted by  $C_1-C_{24}$ alkyl.

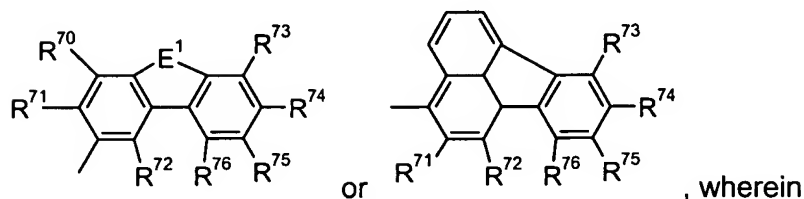
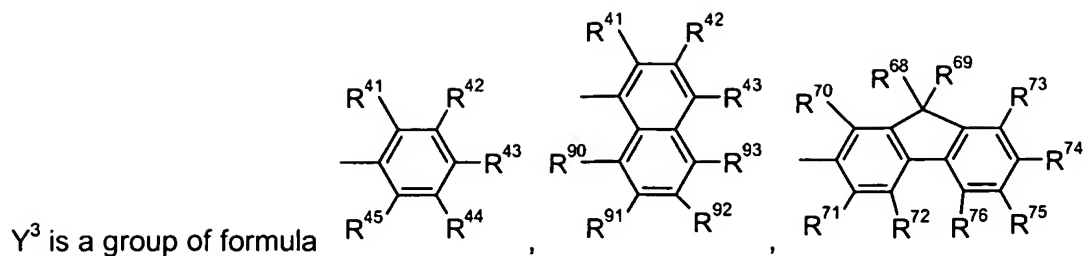
7. (previously presented) An electroluminescent device according to claim 2, wherein the 2H-benzotriazole compound is a compound of formula



$A^{21}$ ,  $A^{22}$ ,  $A^{23}$  and  $A^{24}$  are independently of each other hydrogen, halogen,  $C_1-C_{24}$ alkyl,  $C_1-C_{24}$ perfluoroalkyl,  $C_6-C_{18}$ aryl,  $-NR^{25}R^{26}$ ,  $-CONR^{25}R^{26}$ , or  $-COOR^{27}$ , or  $C_2-C_{10}$ heteroaryl, or

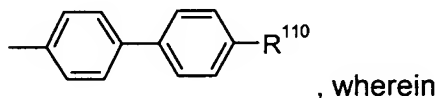
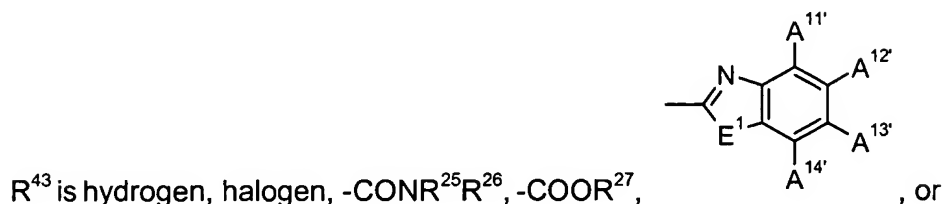
$A^{22}$  and  $A^{23}$  or  $A^{11}$  and  $A^{23}$  are a group of formula , or ,  
 $A^{11}$ ,  $A^{12}$ ,  $A^{13}$ ,  $A^{14}$ ,  $A^{15}$ ,  $A^{16}$ ,  $A^{17}$ , and  $A^{18}$  are independently of each other H, CN,  $C_1-C_{24}$ alkyl,  $C_1-C_{24}$ alkoxy,  $C_1-C_{24}$ alkylthio,  $C_6-C_{18}$ aryl,  $-NR^{25}R^{26}$ ,  $-CONR^{25}R^{26}$ , or  $-COOR^{27}$ , or  $C_2-C_{10}$ heteroaryl, wherein

$R^{25}$  and  $R^{26}$  are independently of each other H,  $C_6-C_{18}$ aryl,  $C_7-C_{18}$ aralkyl, or  $C_1-C_{24}$ alkyl,  $R^{27}$  is  $C_1-C_{24}$ alkyl, and



R<sup>41</sup> is hydrogen, C<sub>1</sub>-C<sub>24</sub>alkoxy, or OC<sub>7</sub>-C<sub>18</sub>aralkyl,

R<sup>42</sup> is hydrogen, or C<sub>1</sub>-C<sub>24</sub>alkyl,



E<sup>1</sup> is -S-, -O-, or -NR<sup>25'</sup>-, wherein R<sup>25'</sup> is C<sub>1</sub>-C<sub>24</sub>alkyl, or C<sub>6</sub>-C<sub>10</sub>aryl,

R<sup>110</sup> is H, CN, C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkylthio, -NR<sup>25</sup>R<sup>26</sup>, -CONR<sup>25</sup>R<sup>26</sup>, or -COOR<sup>27</sup>, or



R<sup>44</sup> is hydrogen, or C<sub>1</sub>-C<sub>24</sub>alkyl,

R<sup>45</sup> is hydrogen, or C<sub>1</sub>-C<sub>24</sub>alkyl,

A<sup>11'</sup>, A<sup>12'</sup>, A<sup>13'</sup>, and A<sup>14'</sup> are independently of each other H, CN, C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkylthio, -NR<sup>25</sup>R<sup>26</sup>, -CONR<sup>25</sup>R<sup>26</sup>, or -COOR<sup>27</sup>,

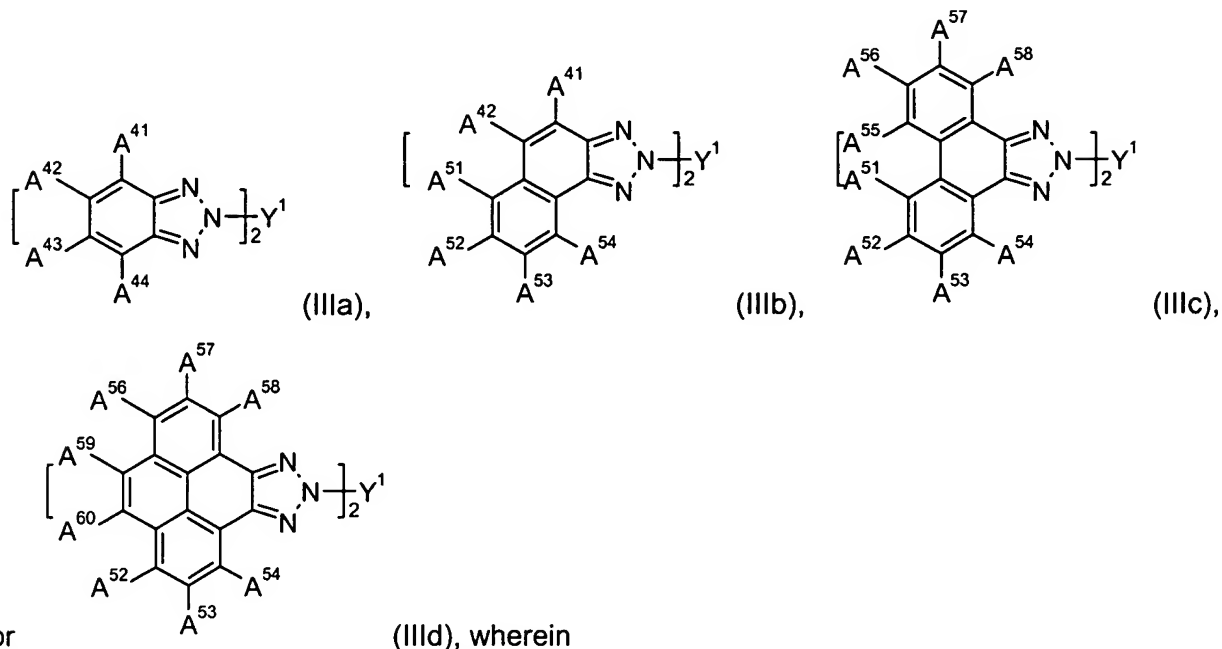
R<sup>68</sup> and R<sup>69</sup> are independently of each other C<sub>1</sub>-C<sub>24</sub>alkyl, which can be interrupted by one or two oxygen atoms,

R<sup>70</sup>, R<sup>71</sup>, R<sup>72</sup>, R<sup>73</sup>, R<sup>74</sup>, R<sup>75</sup>, R<sup>76</sup>, R<sup>90</sup>, R<sup>91</sup>, R<sup>92</sup>, and R<sup>93</sup> are independently of each other H, CN, C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>6</sub>-C<sub>10</sub>aryl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkylthio, -NR<sup>25</sup>R<sup>26</sup>, -CONR<sup>25</sup>R<sup>26</sup>, or -COOR<sup>27</sup>,

R<sup>25</sup> and R<sup>26</sup> are independently of each other H, C<sub>6</sub>-C<sub>18</sub>aryl, C<sub>7</sub>-C<sub>18</sub>aralkyl, or C<sub>1</sub>-C<sub>24</sub>alkyl, and

R<sup>27</sup> is C<sub>1</sub>-C<sub>24</sub>alkyl.

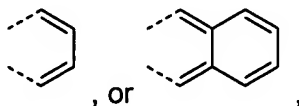
8. (previously presented) An electroluminescent device according to claim 2, wherein the 2H-benzotriazole compound is a compound of formula



or

(IIId), wherein

$A^{41}$ ,  $A^{42}$ ,  $A^{43}$  and  $A^{44}$  are independently of each other hydrogen, halogen,  $C_1$ - $C_{24}$ alkyl,  $C_1$ - $C_{24}$ perfluoroalkyl,  $C_6$ - $C_{18}$ aryl,  $-NR^{25}R^{26}$ ,  $-\text{CO}NR^{25}R^{26}$ , or  $-\text{COOR}^{27}$ , or  $C_2$ - $C_{10}$ heteroaryl, or



$A^{42}$  and  $A^{43}$  are a group of formula

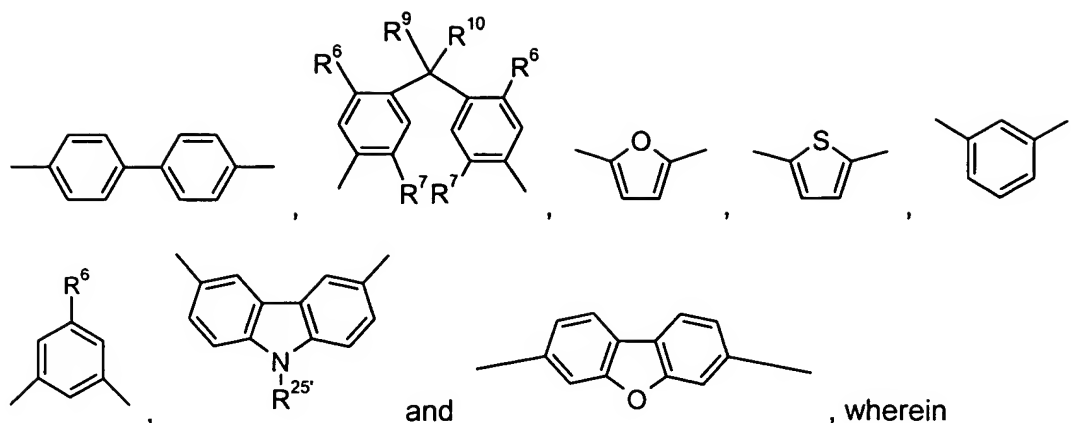
, or

$A^{51}$ ,  $A^{52}$ ,  $A^{53}$ ,  $A^{54}$ ,  $A^{55}$ ,  $A^{56}$ ,  $A^{57}$ ,  $A^{58}$ ,  $A^{59}$  and  $A^{60}$  are independently of each other H, CN,  $C_1$ - $C_{24}$ alkyl,  $C_1$ - $C_{24}$ alkoxy,  $C_1$ - $C_{24}$ alkylthio,  $C_6$ - $C_{18}$ aryl,  $-NR^{25}R^{26}$ ,  $-\text{CONR}^{25}R^{26}$ , or  $-\text{COOR}^{27}$ , or  $C_2$ - $C_{10}$ heteroaryl, wherein

$E^1$  is O, S, or  $-NR^{25}-$ ,

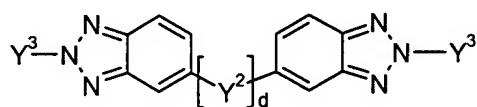
$R^{25}$  and  $R^{26}$  are independently of each other H,  $C_6$ - $C_{18}$ aryl,  $C_7$ - $C_{18}$ aralkyl, or  $C_1$ - $C_{24}$ alkyl,  $R^{27}$  is  $C_1$ - $C_{24}$ alkyl, and

$Y^1$  is a group of formula

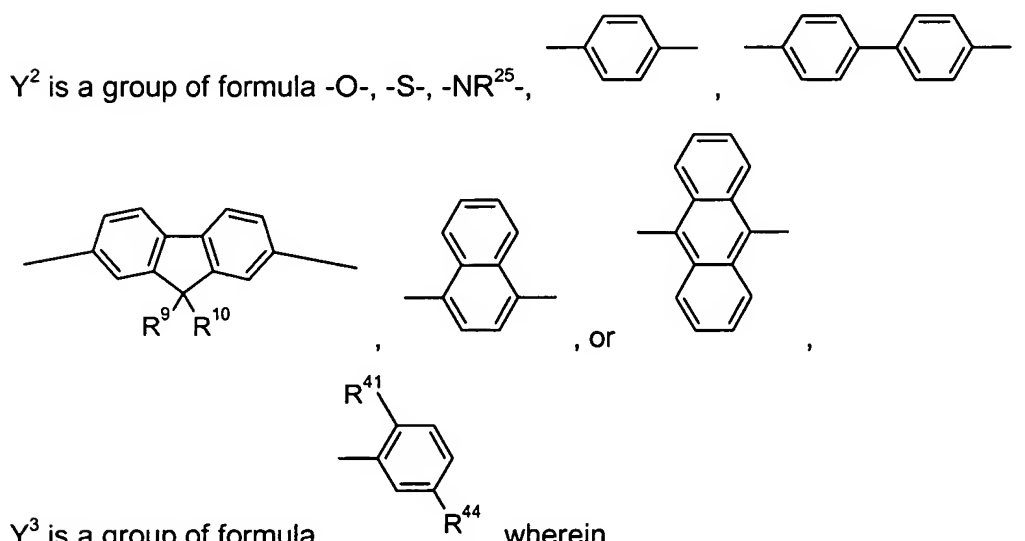


$R^6$  is  $C_1$ - $C_{24}$ alkoxy, or  $-O$ - $C_7$ - $C_{25}$ aralkyl,  $R^7$  is H, or  $C_1$ - $C_{24}$ alkyl,  $R^9$  and  $R^{10}$  are independently of each other  $C_1$ - $C_{24}$ alkyl, which can be interrupted by one or two oxygen atoms, and  $R^{25}$  is  $C_1$ - $C_{24}$ alkyl, or  $C_6$ - $C_{10}$ aryl.

9. (previously presented) An electroluminescent device according to claim 2, wherein the 2H-benzotriazole compound is a compound of formula



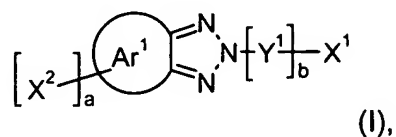
(VIa), wherein d is 0, or 1,



R<sup>41</sup> is C<sub>1</sub>-C<sub>24</sub>alkoxy, or C<sub>7</sub>-C<sub>15</sub>phenylalkoxy, and

R<sup>44</sup> is H, or C<sub>1</sub>-C<sub>24</sub>alkyl.

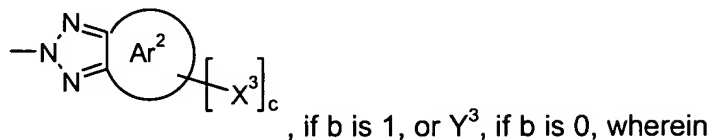
10. (currently amended) A 2H-benzotriazole compound of the formula



a is 0, or 1,

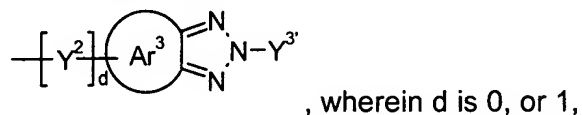
b is 0, or 1,

X<sup>1</sup> is a group of formula



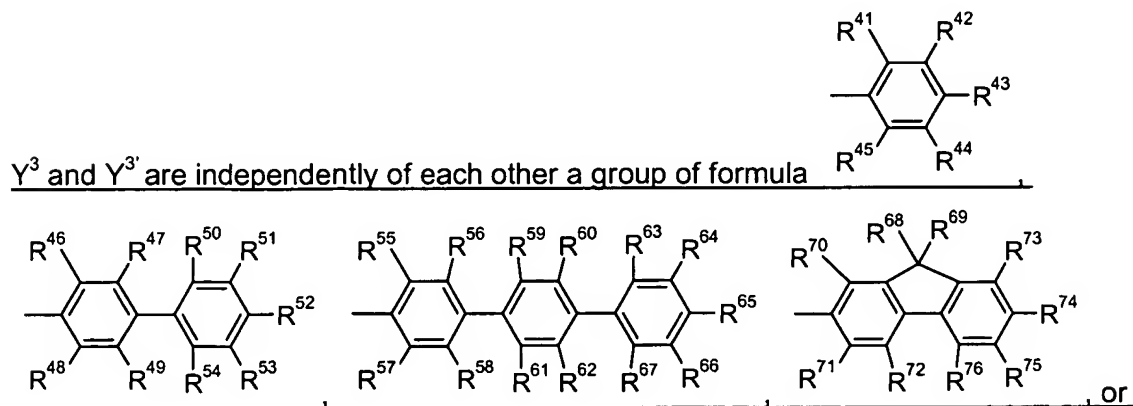
c is 0, or 1

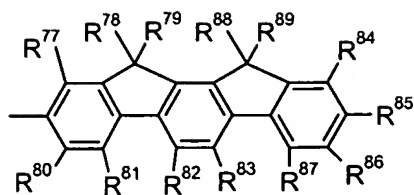
X<sup>2</sup> and X<sup>3</sup> are independently of each other a group of formula



Ar<sup>1</sup>, Ar<sup>2</sup>, and Ar<sup>3</sup> are independently of each other C<sub>6</sub>-C<sub>30</sub>aryl or a C<sub>2</sub>-C<sub>26</sub>heteroaryl, which can optionally be substituted,

Y<sup>1</sup> and Y<sup>2</sup> are independently of each other a divalent linking group, and

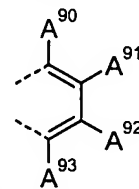




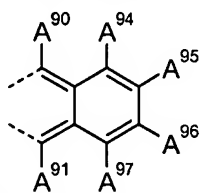
, wherein

$R^{41}, R^{42}, R^{43}, R^{44}, R^{45}, R^{46}, R^{47}, R^{48}, R^{49}, R^{50}, R^{51}, R^{52}, R^{53}, R^{54}, R^{55}, R^{56}, R^{57}, R^{58}, R^{59}, R^{60}, R^{61}, R^{62}, R^{63}, R^{64}, R^{65}, R^{66}, R^{67}, R^{70}, R^{71}, R^{72}, R^{73}, R^{74}, R^{75}, R^{76}, R^{77}, R^{80}, R^{81}, R^{82}, R^{83}, R^{84}, R^{85}, R^{86}$

and  $R^{87}$  are independently of each other H,  $C_1$ - $C_{24}$ alkyl, which is optionally substituted by E and/or interrupted by D,  $C_1$ - $C_{24}$ alkenyl, which is optionally substituted by E,  $C_5$ - $C_{12}$ cycloalkyl, which is optionally substituted by E,  $C_5$ - $C_{12}$ cycloalkoxy, which is optionally substituted by E,  $C_6$ - $C_{18}$ aryl, which is optionally substituted by E,  $C_1$ - $C_{24}$ alkoxy, which is optionally substituted by E and/or interrupted by D,  $C_6$ - $C_{18}$ aryloxy, which is optionally substituted by E,  $C_7$ - $C_{18}$ arylalkoxy, which is optionally substituted by E,  $C_1$ - $C_{24}$ alkylthio, which is optionally substituted by E and/or interrupted by D,  $C_1$ - $C_{24}$ alkylselenium, which is optionally substituted by E and/or interrupted by D,  $C_2$ - $C_{20}$ heteroaryl which is substituted by E, or  $C_6$ - $C_{18}$ aralkyl, which is optionally substituted by E, or two groups  $R^{41}, R^{42}, R^{43}, R^{44}, R^{45}, R^{46}, R^{47}, R^{48}, R^{49}, R^{50}, R^{51}, R^{52}, R^{53}, R^{54}, R^{55}, R^{56}, R^{57}, R^{58}, R^{59}, R^{60}, R^{61}, R^{62}, R^{63}, R^{64}, R^{65}, R^{66}, R^{67}, R^{70}, R^{71}, R^{72}, R^{73}, R^{74}, R^{75}, R^{76}, R^{77}, R^{80}, R^{81}, R^{82}, R^{83}, R^{84}$

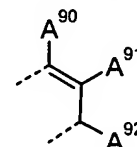


$R^{85}, R^{86}$ , and  $R^{87}$ , which are neighbouring to each other, are a group



or , wherein  $A^{90}, A^{91}, A^{92}, A^{93}, A^{94}, A^{95}, A^{96}$  and  $A^{97}$  are independently of each other H, halogen, hydroxy,  $C_1$ - $C_{24}$ alkyl,  $C_1$ - $C_{24}$ alkyl which is substituted by E and/or interrupted by D,  $C_1$ - $C_{24}$ perfluoroalkyl,  $C_5$ - $C_{12}$ cycloalkyl,  $C_5$ - $C_{12}$ cycloalkyl which is substituted by E and/or interrupted by S-, -O-, or -NR<sup>25</sup>-,  $C_5$ - $C_{12}$ cycloalkoxy,  $C_5$ - $C_{12}$ cycloalkoxy which is substituted by E,  $C_6$ - $C_{24}$ aryl,  $C_6$ - $C_{24}$ aryl which is substituted by E,  $C_2$ - $C_{20}$ heteroaryl,  $C_2$ - $C_{20}$ heteroaryl which is substituted by E,  $C_2$ - $C_{24}$ alkenyl,  $C_2$ - $C_{24}$ alkynyl,  $C_1$ - $C_{24}$ alkoxy,  $C_1$ - $C_{24}$ alkoxy which is substituted by E and/or interrupted by D,  $C_7$ - $C_{25}$ aralkyl,  $C_7$ - $C_{25}$ aralkyl, which is substituted by E,  $C_7$ - $C_{25}$ aralkoxy,  $C_7$ - $C_{25}$ aralkoxy which is substituted by E, or -CO-R<sup>28</sup>,

R<sup>68</sup>, R<sup>69</sup>, R<sup>78</sup>, R<sup>79</sup>, R<sup>88</sup> and R<sup>89</sup> are independently of each other C<sub>1</sub>-C<sub>18</sub> alkyl, C<sub>1</sub>-C<sub>24</sub>alkyl which is substituted by E and/or interrupted by D, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryl which is substituted by E, C<sub>2</sub>-C<sub>20</sub>heteroaryl, C<sub>2</sub>-C<sub>20</sub>heteroaryl which is substituted by E, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>2</sub>-C<sub>24</sub>alkynyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkoxy which is substituted by E and/or interrupted by D, or C<sub>7</sub>-C<sub>25</sub>aralkyl, or R<sup>68</sup> and R<sup>69</sup>, R<sup>78</sup> and R<sup>79</sup>, and/or R<sup>88</sup> and R<sup>89</sup> form a five- or six-membered ring, or



R<sup>68</sup> and R<sup>70</sup>, R<sup>69</sup> and R<sup>73</sup>, R<sup>77</sup> and R<sup>78</sup> and/or R<sup>84</sup> and R<sup>89</sup> are a group

D is -CO-; -COO-; -S-; -SO-; -SO<sub>2</sub>-; -O-; -NR<sup>25</sup>-; -SiR<sup>30</sup>R<sup>31</sup>-; -POR<sup>32</sup>-; -CR<sup>23</sup>=CR<sup>24</sup>-; or -C≡C-; and E is -OR<sup>29</sup>; -SR<sup>29</sup>; -NR<sup>25</sup>R<sup>26</sup>; -COR<sup>28</sup>; -COOR<sup>27</sup>; -CONR<sup>25</sup>R<sup>26</sup>; -CN; -OCOOR<sup>27</sup>; or halogen;

wherein

R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and R<sup>26</sup> are independently of each other H; C<sub>6</sub>-C<sub>18</sub>aryl; C<sub>6</sub>-C<sub>18</sub>aryl which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl, or C<sub>1</sub>-C<sub>24</sub>alkoxy; C<sub>1</sub>-C<sub>24</sub>alkyl; or C<sub>1</sub>-C<sub>24</sub>alkyl which is interrupted by -O-; or

R<sup>25</sup> and R<sup>26</sup> together form a five or six membered ring,

R<sup>27</sup> and R<sup>28</sup> are independently of each other H; C<sub>6</sub>-C<sub>18</sub>aryl; C<sub>6</sub>-C<sub>18</sub>aryl which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl, or C<sub>1</sub>-C<sub>24</sub>alkoxy; C<sub>1</sub>-C<sub>24</sub>alkyl; or C<sub>1</sub>-C<sub>24</sub>alkyl which is interrupted by -O-,

R<sup>29</sup> is H; C<sub>6</sub>-C<sub>18</sub>aryl; C<sub>6</sub>-C<sub>18</sub>aryl, which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl, or C<sub>1</sub>-C<sub>24</sub>alkoxy; C<sub>1</sub>-C<sub>24</sub>alkyl; or C<sub>1</sub>-C<sub>24</sub>alkyl which is interrupted by -O-,

R<sup>30</sup> and R<sup>31</sup> are independently of each other C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>6</sub>-C<sub>18</sub>aryl, or C<sub>6</sub>-C<sub>18</sub>aryl, which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl, and

R<sup>32</sup> is C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>6</sub>-C<sub>18</sub>aryl, or C<sub>6</sub>-C<sub>18</sub>aryl, which is substituted by C<sub>1</sub>-C<sub>24</sub>alkyl

Y<sup>3</sup> and Y<sup>3'</sup> are independently of each other C<sub>6</sub>-C<sub>30</sub>aryl or a C<sub>2</sub>-C<sub>26</sub>heteroaryl, which can optionally be substituted.